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13 APRIL 1989

Mr. Jack Kelly
USEPA
CERCLA Remedial Enforcement Section
841 Chestnut Building
Philadelphia, PA 19107

FILE: 110-15-05

Dear Mr. Kelly:

In accordance with the Work Plan and your RISOP approval letter dated 13 February 1989, the following is the first monthly progress report submitted for the William Dick Lagoons Site, West Caln Township, Chester County PA. This report outlines all field operations which have taken place at the site beginning in November 1988 through March 1989.

Preliminary Activities

Preparation of the site for field activities was begun the week of 28 November 1988. Site preparation included improvements to the access road, construction of a decontamination area, construction of an on-site area for the disposal of soil samples, delivery of a clean water and a waste water containment tanker and delivery of a box trailer which serves as the field office.

Rock Coring

The field investigation began with the drilling of two core holes for the purpose of obtaining site specific data to characterize the bedrock and apparent subsurface zones of weakness. Acquisition of continuous bedrock cores was unsuccessful at each of the two locations within the former lagoon area. Each core hole was advanced to a total depth of 60 feet and did not produce any recoverable core.

In response to your 13 February 1989 letter, ERM feels that due to the characteristics of the bedrock, collection of continuous split spoon samples in lieu of coring would not be feasible. Information gained during the shallow well installation which used a a drilling method somewhat analogous to split spoon sampling indicated that the formation, although too soft in spots for core recovery, would be too hard for sample collection with split spoons.

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Soil Sampling

Twenty-seven soil boring locations within the former Lagoon Area were sampled during the weeks of 5 December 1988 and 19 December 1988. Soil borings ranged from four to sixteen feet in depth, corresponding to the depth of undisturbed material or auger refusal. One sample from each of the borings was selected for analyses based upon field headspace readings. Additional samples were selected for EP toxicity, TCLP analyses and various geotechnical parameters.

As noted in your 13 February 1989 letter, 7 samples were collected from the spray irrigation area east of the site. A background sample was also collected in the western undisturbed portion of the site. All samples were analyzed for complete TCL and TAL parameters. This sampling was conducted and completed during the week of 6 February 1989.

Well Installation

A total of 12 monitoring wells were installed and developed during the months of December 1988 and January and February 1989. One deep monitoring well well and one shallow well make up each of the six monitoring well nests. Well nests one through four are located around the perimeter of the former Lagoon Area. The fifth well nest is located along the crest of the ridge 500 feet west of the site. The sixth nest is located approximately 700 feet south of the site near the L. Gregor property. Well nests five and six are located along apparent geologic features identified in the preliminary geologic mapping effort.

The deep monitoring wells (MW-1D, MW-3D, MW-5D, MW-7D, MW-9D, and MW-11D) are completed with approximately 100 feet of 6-inch I.D. steel casing and 50 feet of open borehole. Total depths of these wells range from 134 to 147 feet below the surface.

Because of the weathered nature of the bedrock, an alternate shallow monitoring well design was required to prevent the formation from collapsing into the borehole. These geologic conditions led to the USEPA approved well design constructed of 2-inch I.D. PVC screen and riser, gravel pack and bentonite seal. The shallow wells (MW-2S, MW-4S, MW-6S, MW-8S, MW-10S and MW-12S) range in depth from 70 feet to 78 feet below the land surface. The deepest point is a minimum of 20 feet above the bottom of the steel casing in the adjacent deep well.

Ground water Sampling

The 12 ground water monitoring wells were sampled during the weeks of 20 February and 27 February 1989. Additional time was required due to the unseasonably warm and wet weather which prevented the site from freezing thereby making access difficult.

The shallow wells recharged sufficiently and allowed the purging of three well volumes prior to sampling. Most deep wells were found to recharge very slowly (less than 1-2 gpm). These wells were purged a minimum of one well volume prior to sampling.

→ Problem?

It was also discovered during this sampling event that deep wells MW-1 and MW-5 had silted in apparently due to sloughing from a zone(s) of weakness in the open borehole. These wells were sampled and will be cleared prior to the next sampling effort.

Surface water and Sediment Sampling

Surface water and sediment sampling was conducted at 15 stations along the down gradient tributaries during the week of 6 February 1989. Prior approval from the private landowners where the sampling stations were located was obtained through a hand delivered request letter several days prior to the sampling.

Site Surveying

During the week of 20 March 1989 a licensed surveyor was used to survey the locations of the 27 soil borings, 8 soil samples in the spray irrigation area and the new monitoring wells . In addition, the top of casing elevation and ground surface elevation of the monitoring wells were also determined. This information is currently being plotted by the surveyor. When completed ERM will provide USEPA with an updated copy of the site topographic plan showing the features described above.

Data Review

Preliminary data validation has been completed for the TCL and TAL soil boring data. The data packages needed to qualify the TCLP and EP Toxicity data are insufficient and must be resubmitted by the laboratory. A copy to the preliminary results for the TCL organic TAL inorganic analyses are included with this submission.

I'd like data QA reports

The surface water and sediment data has been received and has been tabulated but not validated. Once preliminary data tables are completed a copy of the data will be sent to the USEPA.

The ERM Group

Site Activities

During March several field tasks were conducted to police the site. One of the clean water tankers at the site has been removed. One clean water and two waste water tankers still remain. Access to the site via the main access road was restricted through the installation of a well marked chain across the access road. In addition metal fence posts were install at two locations across the former access road to prevent unauthorized travel on the adjacent private properties.

RI Report

Work has already begun on the preparation of the RI report. First draft versions of the introduction and field investigation methods have already been completed. Preliminary evaluation and determination of the geologic setting has also been prepared.

Anticipated Activities in the Coming Months

Validation of the soil boring and surface water and sediment data will be completed during the month of April. The surface water and sediment data will be used to help in the selection of the stream habitat assessment locations. The stream habitat assessment task has been scheduled for the week of 24 April 1989, weather permitting.

Portions of the ground water analytical data have been received and are continuing to be received. This data will be reviewed to determine the indicator parameters for the site. It is anticipated that this list will be submitted to EPA the week of 24 April 1989. It is hoped that your expedient review will enable ERM to conduct the second round of groundwater sampling which is scheduled for the week of 8 May 1989.

Prior to the second ground water sampling event, MW-1D and MW-5D will be cleaned out and fitted with a 2-inch PVC screen and riser. The well construction will use the same design that was approved for the shallow wells.

Arrangements have also been made with the USGS to conduct geophysical logging of wells MW-3D, MW-7D, MW-9D and MW-11D. This work is scheduled for the week of 24 April 1989.

Work on the RI report will continue beginning with the interpretation of data collected during the soil boring program.

I apologize for the delay in submitting this report. Future monthly reports will be submitted on a timely basis. If you have any questions regarding this report or the proposed activities, do not hesitate to call.

Sincerely,

James La Regina
Project Manager

Enclosure

cc: B. Hartmann
D. Armstrong